Serial No.: <u>10/041,455</u>

Response to April 1, 2005 Office Action Docket No.: RAL920000103US1 (1963-7418)

# **IN THE DRAWINGS**:

Fig. 1 and Fig. 3 have been amended in response to the Examiner's objections under 37 CFR 1.83(a). Corrected drawings sheets, labeled as Replacement Sheets for Fig. 1 and Fig. 3 are attached.

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#### **REMARKS**:

Reconsideration and allowance of the claims in the application are requested.

Claims 1-16 and 18-24 are pending in the application.

The drawings are objected to under 37 CFR 1.83(a) for failure to show feature of the invention

The disclosure is objected to for informality.

Claims 1-16 have been objected to due to informalities.

Claims 1-16 have been rejected under 35 US 112, first paragraph as failing to comply with the enablement requirement.

Claims 1-16 and 18-24 have been rejected under 35 USC 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter of the application.

Applicants have canceled and rewritten claims 1-16 as new claims 25-42. Claim 43 has been added as the base claim for original claims 18-24. The specification and drawing have been amended to conform to one another. Corrected drawings have been provided.

Applicants respond to the indicated paragraphs of the rejection, as follows:

# Regarding Paragraphs 1/2:

The Examiner's comments are noted.

#### Regarding Paragraph 3:

Figure 1 has been amended, as follows:

- (i) The reference 110 has been deleted at the input of the receiver 108.
- (ii) The specification at page 6, line 14 has been changed to designate the communication channel with reference 104 in place of 106.
  - (iii) The reference 100 has been underlined in place of pointing to the DSSS.
- (iv) The specification at page 6, line 15 has been changed to designate the receiver with reference 108 in place of reference 104.
- (v) The reference 104 has been changes to point to the communication channel in place of an underline.

Figure 3 has been amended as follows;

(i) Reference number 300 has been added to identify a correlator.

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(ii) Reference number 318 has been added to describe a synchronizing circuit.

(iii) Reference number 305 has been changed to reference number 306.

Entry of the corrected drawings and withdrawal of the objection to the drawing are requested.

#### Regarding Paragraph 4:

#### A. Claim 9:

Claim 9 has been canceled and rewritten as New Claim 34. The objections noted by the Examiner regarding claim 9 have been cured in new claim 34.

#### B. Claim 10:

Claim 10 has been canceled and rewritten as New Claim 40. The objections noted by the Examiner regarding claim 10 have been cured in new claim 40.

# C. Claim 11:

Claim 11 has been canceled and rewritten as New Claim 41. The objections noted by the Examiner regarding claim 11 have been cured in New Claim 41

## D. Claim 10 (16):

Claim 16 has been canceled and rewritten as New Claim 42. The objections noted by the Examiner regarding claim 16 have been cured in New Claim 42.

Entry of the amendment to the specification and claims in support of the drawing, as described above, and withdrawal of the objection to the drawing are requested.

#### Regarding Paragraph 5:

Corrected drawing sheets are attached for Figures 1 and 3. No figures have been deleted. The amended drawings have been labeled "Replacement Sheet".

Entry of the corrected drawings is requested.

# Regarding Paragraph 6:

The specification has been cured to delete the double recitation regarding the analogdigital decoder 312.

Entry of the amendment to the specification and withdrawal of the objection to the specification are requested.

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## Regarding Paragraph 7:

The objections to claims 1-16, now claims 25 - 40 have been cured, as follows;

# A. <u>Claim 1</u>:

. (i) Claim 1 has been canceled and rewritten as New Claim 25. The Examiner's objection regarding claim 1 have been cured in New Claim 25.

# B. Claim 2

(i) Claim 2 has been canceled and rewritten as New Claim 26. The Examiner's objection regarding claim 2 have been cured in New Claim 26.

## C. Claim 3:

(i) Claim 3 has been canceled and rewritten as New Claim 27. The Examiner's objection regarding claim 3 have been cured in New Claim 27.

# D. Claim 4:

i) Claim 4 has been canceled and rewritten as New Claim 28. The Examiner's objection regarding claim 4 have been cured in New Claim 28.

## E. Claim 5

(i) Claim 5 has been canceled and rewritten as New Claim 29. The Examiner's objection regarding claim 5 have been cured in New Claim 28.

## F. Claim 6

(i) Claim 6 has been canceled and rewritten as New Claim 30. The Examiner's objection regarding claim 6 have been cured in New Claim 30.

## G. Claim 7:

(i) Canceled.

# H. Claim 8:

(i) Claim 8 has been canceled and rewritten as New Claim 32. The Examiner's objection regarding claim 6 have been cured in New Claim 32.

#### I. Claim 9

Claim 9 has been canceled and rewritten as New Claim 34. The objections noted by the Examiner regarding claim 9 have been cured in New Claim 34.

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#### J. Claim 10

Claim 10 has been canceled and rewritten as New Claim 40. The objections noted by the Examiner regarding claim 10 have been cured in New Claim 40.

## K. Claim 11

Claim 11 has been canceled and rewritten as New Claim 41. The objections noted by the Examiner regarding claim 11 have been cured in New Claim 41.

## L. Claim 12

Claim 12 has been canceled.

# L. <u>Claim 13</u>:

Claim 13 has been canceled.

## M. <u>Claim 14:</u>

Claim 14 has been canceled.

## N. <u>Claim 15:</u>

Claim 15 has been canceled.

## O. Claim 16:

Claim 16 has been canceled and rewritten as New Claim 42. The objections noted by the Examiner regarding claim 16 have been cured in New Claim 42.

Entry of New Claim 34, 40-42 is requested.

## Regarding Paragraph 8:

Claims 1-16 comply with the requirements of 35 USC 112, first paragraph, as follows.

## A. Claim 1:

- (i) Claim 1 has been canceled and rewritten as New Claim 25.
- (ii) Fig. 5, in conjunction with the specification, beginning at page 11, line 6 and continuing to page 12, line 18, describes determining a correlator value for the extraction of a PN code. Fig. 4 and the specification, at page 10, line 5 continuing to page 11, line 4, further describes obtaining a correlator value for extracting the PN code.

Figs. 4 and 5 and the supporting disclosure clearly provides a worker skilled in the art the necessary disclosure determine to a correlator value for extracting a PN code.

#### B. Claim 4:

(i) Claim 4 has been canceled and rewritten as New Claim 28.

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(ii) The specification, at page 4, line 19-22 describes adjusting the transmitted signal power level for attenuation of transmitted data. Adjusting the power level for attenuation is also described at page 9, lines 10-15 in conjunction with Fig. 3A.

- C. Claim 8:
- (i) Claim 8 has been canceled and rewritten as New Claim 32.
- (ii) The specification, at page 9, line 16 and continuing to page 10, line 4, discloses a channel analyzing section 366 computing a correlation value for a phase-shifted received signal. The correlation is compared to a threshold value and a control signal is generated in the channel analyzer section. The control signal is provided as an input to a channel processor 368. When the computed correlation value is below the threshold value, the processor adjusts the PN code length for improved channel reliability. The cited text clearly provides a worker skilled in the art a sufficient understanding of using DSSS to determine the presence of unreliable data.

In view of the above, claim 8 is believed clearly enabled. Withdrawal of the rejection under 35 USC 112, first paragraph, is requested.

- D. Claim 9:
- (i) Claim 9 has been canceled and rewritten as New Claim 34.
- (ii) Figs. 4 and 5 enable a worker skilled in the art to determine a correlator value for extracting a PN code, for reasons previously indicated, in connection with the consideration of claim 25. Applicants submit that the cited text clearly enables a worker skilled in the art to implement determining a correlator value for extracting a PN code.
  - E. Claim 10:
  - (i) Claim 10 has been canceled and rewritten as New Claim 40.
- (ii) Claim 40 is enabling for the same reasons indicated in connection with the consideration of New Claim 34.
  - F. Claim 11
  - (i) Claim 11 has been canceled and rewritten as New Claim 41.
- (ii) Claim 41 is enabled for the same reasons indicated in connection with the consideration of claims 34 and 40.

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G. Claim 16:

(i) Claim 16 has been canceled and rewritten as New Claim 42. Claim 42 is enabled for the same reasons indicated in connection with the consideration of claims 34, 40-42.

# Regarding Paragraph 10 & 11:

Claims 1-16 and 18-24 satisfy the requirements of 35 USC 112/2, as follows:

- A. Claim 1:
- (i) Claim 1 has been canceled and rewritten as New Claim 25
- (ii) Claim 25 now defines the loss in terms of attenuation, as described in the specification at page 4, line 15-18.
- (iii) The claim is not indefinite because it is unclear if the signal provided to a correlator contains data. The specification, at page 6, line 11-23 describes a PN code modulated carrier source further modulated by a data signal to provide an output signal to a communications channel. Claim 25 defines a PN coded data signal as a positive element.
  - B. <u>Claim 2 9</u>
  - (i) Claims 2-9 have been canceled and rewritten as New Claim 26-32 and 34.
- (ii) New Claims 26- 32 depend upon New Claim 25 which is definite for the reasons indicated above in sub-paragraph A.
  - (iii) New Claim 34 is definite for the same reasons indicated for New Claim 25.
  - C. Claims 18-24:

Claims 18 -24 now depend upon New Claim 43.

Summarizing, Claims 1-16 (canceled and rewritten as New Claim 25 - 32), and original 18-24 are supported in the specification and satisfy the requirements of 35 USC 112/2 for reasons indicated above.

#### Regarding Paragraph 12:

- A. Claim 2 is rejected as incomplete under 35 USC 112/2.
- (i) Claim 2 has been canceled and rewritten as New Claim 26.
- (ii) New Claim 26 is not incomplete for omitting essential steps. MPEP 2172.01 states, "it is not essential to a patentable combination that there be inter-dependency between the elements of the claimed device or that all of the elements operate concurrently toward the desired reciting Ex Parte Nolden, 149 USPQ 378, 380 (Board of Patent Appeals, 1965).

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According to Ex Parte Nolden, there is support for claims having limitations, which are not in necessary order.

# Regarding Paragraphs 13/14:

- A Claims 4-6 and 8 are rejected as incomplete under 35 USC 112/2.
- (i) Claims 4-6 and 8 have been canceled and rewritten as New Claims 28-30, and 32:
- (ii) Claims 28-30 and 32 do not include missing steps. There is no requirement that there be inter-dependency between the steps or that all of the steps operate concurrently toward the desired result or function simultaneously or directly inter-cooperate or serve independent purposes. According to Ex Parte Nolden, cited above, and discussed in MPEP 2172.01.

# Regarding Paragraph 15:

(i) Claim 15 has been canceled.

# Regarding Paragraph 16:

(i) Claims 12 - 14 have been canceled.

## Regarding Paragraph 17:

Applicant has reviewed USP 6,163,566 for H. Shiino, issued December 19, 2000, and USP 6,654,407 to F.F. Moore, issued November 25, 2003, filed December 21, 2001. Shiino discloses a spread spectrum communication system for reducing the number of required of matched filters to simplify the configuration associated with a reception. Moore discloses a spread spectrum noise shaper to achieve a greater signal to noise or signal to interference ratio. Neither reference is directed to or discloses or suggests a system, a method, apparatus or a program product for dynamic measurement of a communication signal using spread spectrum by comparing a correlator value to a threshold where a value below the threshold is indicative of unreliable communication and a value above the threshold is indicative of reliable transmission on a communication channel. The art cited, but not applied, does not disclose, suggest or teach the subject matter of the claimed method, system and program product for dynamic measurement of a communication channel using Direct Sequence Spread Spectrum

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#### **CONCLUSION:**

Having amended the specification, provided corrected drawings, canceled claims 1 -16, provided New Claims 25-42 in place of claims 1- 16, supported the patentability of New Claims 25 - 42, added New Claim 43 as a base claim for dependent claims 18-24, clarified or cured the Examiner's objections and rejections under 35 USC 112/1 or 2, Applicants request entry of the amendment and New Claims 25-43, allowance all claims and passage to issue of the case.

#### **AUTHORIZATION:**

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. <u>50-0563</u>, Order No. <u>RAL920010021 (1963-7418)</u>. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. <u>50-0563</u>, Order No. <u>RAL920010021S1 (1963-7418)</u>.A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,

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Dated: June 28, 2005

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